

FACT SHEET

PROPOSED GENERIC AIR TOXICS STANDARDS FOR FOUR SOURCE CATEGORIES: CYANIDE CHEMICALS MANUFACTURING, CARBON BLACK PRODUCTION, ETHYLENE PRODUCTION AND SPANDEX PRODUCTION FACILITIES

TODAY'S ACTION

- ! The Environmental Protection Agency (EPA) is proposing a rule to reduce emissions of air toxics from four categories of pollution sources: cyanide chemicals manufacturing; carbon black production; ethylene production; and spandex production facilities.
- ! The proposed rule would require that major sources of air toxics in these categories meet emission standards that reflect the highest level of emissions control possible with current technology, known as “maximum achievable control technology,” or MACT. This rule is known as a “generic MACT rule,” because it includes proposed standards for all four pollution source categories.
- ! Air toxics, also called hazardous air pollutants, are those pollutants known or suspected of causing cancer or other serious health effects. Air toxics that would be reduced by this proposed rule include cyanide compounds, acrylonitrile, acetonitrile, carbon disulfide, carbonyl sulfide, benzene and 1,3 butadiene.
- ! While the proposed generic MACT rule would set emissions standards for each category of pollution sources, it refers to existing rules for requirements for design, operating, testing, inspection, monitoring, repair, and recordkeeping and reporting. This will eliminate the potential for duplicate or conflicting requirements.
- ! EPA also is proposing standards for heat exchangers and waste at ethylene production facilities as part of this proposed rule.
- ! The proposed rule will apply only to major sources of air toxic emissions. Major sources are those that have the potential to emit more than 10 tons a year of a single air toxic, or 25 tons a year of a combination of toxics.
- ! The rule will affect approximately 73 major sources, plus any similar facilities built in the future. The number of major sources by source category are: cyanide chemicals manufacturing, 14; carbon black production, 20; ethylene production, 36; and spandex production, two.

- ! EPA worked with representatives of the affected industries, environmental groups, state and local agencies and other EPA offices to develop the proposed rule.

BENEFITS AND COST

- ! Today's proposed rule would reduce emissions of cyanide compounds, acrylonitrile, acetonitrile, carbon disulfide, carbonyl sulfide, benzene and 1,3 butadiene by a combined total of about 3,240 tons annually. The toxics that would be reduced include known, probable and possible human carcinogens, and compounds that can damage the central nervous system and kidneys.
- ! The proposed rule also would result in the control of volatile organic compounds (VOCs), one of the precursors of ground-level ozone, or smog. Ozone can aggravate asthma and other respiratory conditions, and it can damage crops and other plants.
- ! The cost of the proposed rule, when fully implemented, is estimated to be \$22.2 million a year. The annual cost by source category is: cyanide chemicals manufacturing, \$1.6 million; carbon black production, \$10.6 million; ethylene production, \$10 million; spandex production, \$0.02 million. The estimated cost includes the cost of monitoring, recordkeeping and reporting.

BACKGROUND

- ! The Clean Air Act requires EPA to develop standards that reflect the maximum degree of reduction in air toxic emissions possible when the maximum achievable control technology (MACT) is applied to major sources.
- ! For new sources, the law requires EPA to establish standards requiring emissions control equal to that achieved by the best controlled similar source in the country. For existing sources, EPA is required to establish standards equal to the average emission limit achieved by the best performing 12 percent of the existing sources in a category or subcategory that contains 30 or more sources. For categories with fewer sources, the standards must be at least equal to the average emission limit achieved by the best performing five sources.

WHAT THE RULE REQUIRES

- ! Following is a summary for each source category:

Cyanide Chemicals Manufacturing

- < The proposed standards apply to each cyanide chemicals manufacturing process unit, along

with associated wastewater streams and equipment, that produces cyanide chemicals by the Blausaure Methane Anlage process, the Andrussov process, the Sohio production process, or the neutralization (wet) process.

- < The proposed standards regulate air toxic emissions from process vents from continuous unit operations, storage vessels storing hydrogen cyanide product, transfer operations, wastewater and equipment leaks. The standards for new and existing sources are the same.

Carbon Black Production

- < The proposed standards apply to each process unit, along with associated process vents and equipment, that produces carbon black by the furnace black process, thermal black process, or the acetylene decomposition process.
- < The proposed standards regulate air toxic emissions from process vents associated with the main unit filter. The standards for new and existing sources are the same.

Ethylene Production

- < The proposed standards apply to each ethylene manufacturing process unit.
- < The proposed standards regulate air toxic emissions from process vents from continuous unit operations, storage vessels, transfer racks, waste operations and heat exchange systems. The standards for new and existing sources are the same.

Spandex Production

- < The proposed standards regulate air toxic emissions from process vents, storage vessels, and fiber spinning lines that are associated with reaction spinning spandex production processes. The standards for new and existing sources are the same.

! General compliance, maintenance, monitoring, recordkeeping and reporting requirements are contained within the Generic MACT rule (40 CFR part 63, subpart YY). The other rules referenced by the Generic MACT rule cover:

- C equipment leaks;
- C storage vessels;
- C oil and water separators;
- C surface impoundments;

- C individual drain systems;
- C containers; and
- C closed vent systems, control devices, recovery devices and routing to a fuel gas system or a process.

FOR MORE INFORMATION

- ! For more information about the proposal, contact Mark Morris of EPA's Office of Air Quality Planning and Standards at (919) 541-5416. The proposed rule is available on the World Wide Web at: <http://www.epa.gov/ttncaaa1/t3pfpr.html>.
- ! EPA's Office of Air and Radiation home page on the Internet contains a wide range of information on the air toxics program and many other air pollution programs and issues. The address is: <http://www.epa.gov/oar>.